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ABSTRACT

Findings of a survey on use of instructional television (ITV) sent to approximately 1,000 special education teachers are reported. An initial chapter describes the survey procedure and highlights background information about the sample. Findings are reported in the second chapter about the availability of ITV equipment, formats, and viewing settings among special education teachers. A third chapter on ITV use notes that special education teachers use ITV less frequently than regular class teachers, and that only 21% use it on a regular basis. Further, special educators found the broadcast schedules less convenient than teachers in the general population. A fourth chapter analyzes survey responses concerning the availability of support ITV services. Concerns voiced included lack of training about ITV and unavailability of teachers' guides and corresponding print material. The final chapter focuses on the availability and use of microcomputers, noting tht special education teachers used microcomputers much less frequently than they use ITV. (CL)

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EVALUATION OF INSTRUCTIONAL TELEVISION UTILIZATION AMONG SPECIAL EDUCATION TEACHERS

[Final Report]

by

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September 1982

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INTRODUCTION

The utilization of television in the classroom has received considerable attention from both broadcasters and instructional television production agencies. Two nationwide ITV* utilization studies (Dirr & Pedone, 1979; Crane, 1979) have been supported by the Corporation for Public Broadcasting (CPB). The first study was conducted by the Office of Educational Activities at CPB in cooperation with the National Center for Education Statistics. This study provided an important data base upon which subsequent studies could be built. The sample in this large national study represented approximately 12,000 school districts; 90,000 school buildings; 2,275,000 classrooms; and 46,000,000 students (Dirr & Pedone, 1979; p. 2). The utilization study examined attitudes toward ITV, availability of ITV, and frequency of use as reported by teachers, principals, and superintendents. While subsequent analyses of the same data (Pedone & Korb, 1980) have been performed, the use of ITV among Special Education teachers has not been examined.

The School Television Utilization Study has reported extensive use (59% of all teachers) of ITV in the classroom. Some other important findings of that study (Dirr & Pedone, 1979) were that:

- Approximately one-third of all teachers used instructional television on a regular basis during the year surveyed;
- Most teachers, who use ITV, integrate it into their regular classroom curriculum; and
- More than half of the teachers have some kind of videotape equipment available to them for their use.

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*ITV- instructional television

In addition to these findings, the study also determined that $73-100,000,000 was spent by local school districts on instructional television. Also, teachers cited the major strengths of ITV to be: accessing of new resources and people to their classes; providing different approaches to presenting material; presenting new material; and reinforcing material already taught.

These findings have important implications for the education of the handicapped. There is no question that the unique capabilities of television are particularly appropriate for special needs children. Among these are:

- Children with print-related disabilities can acquire information otherwise inaccessible to them, through televised presentations;
- Hearing-impaired children can benefit from information accessing through television and can learn to read through the use of captioning; and
- Children with emotional disturbances can benefit from the many affective programs available. (There are four affective series available from the Agency for Instructional Television for different age groups.)

There is also specialized programming such as "Feeling Free" which deals specifically with handicapped children. This series was designed to enhance the self-concept of handicapped children and to sensitize their peers to their special needs. No classroom utilization data are available on this series.

In another study supported by CPB's Office of Engineering Research, the Agency for Instructional Television (the largest producers of instructional programming for children) contracted with Dr. Valerie Crane to conduct an examination of small-format videotape use in schools. The purpose of this study was to examine the potential for multiple ITV delivery systems to classrooms; to gather in-depth information on small-format videotape availability and use with a national sample of teachers and potential clients; and to determine the potential for distribution of programming in VideoKit form (a package of videotapes and ancillary materials which would be made available directly to classrooms). This research study (Crane, 1979) revealed that the development of alternative formats holds great promise for increasing utilization of ITV in the schools. However, no estimates were obtained on the level of use or potential for use among Special Education teachers.

Because these utilization studies have revealed that television is an educational resource available to most classroom teachers, it is important to determine whether this resource is equally available and useful to Special Education teachers. In a time when budget cuts will be limiting purchase of materials for these classes, existing broadcast of instructional programming in schools should be examined.

In the fall of 1981, the Department of Education awarded a grant to Research Communications, Inc. to investigate the utilization of ITV among Special Education teachers in grades K-12. A national survey of approximately 1,000

Special Education teachers was conducted by RCI from September of 1981 to August 1982.

Based upon the existing utilization studies and the experience of the research staff for this project, the following objectives were identified for the current survey:

1. to determine the availability of ITV programming and equipment among Special Education teachers;
2. to determine the type and frequency of use of ITV programs and factors influencing use among Special Education teachers;
3. to examine the availability of support ITV services; and
4. to examine the availability and use of microcomputers as a point of comparison to ITV availability and use.

The findings of the ITV survey are presented here. In the first section of this report, the evaluation design for the survey is described. In the second section, the findings on the availability of ITV are presented, and, in the third section, the utilization of ITV is discussed. In Part IV, data on the availability of support services are presented and a final section is included on the availability and use of microcomputers. In this report, data are presented in tabular form on the left hand side of the page opposite the accompanying text. This format is designed to enable the reader to compare tabular data to the text. Comparisons against the Dirr and Pedone (1977) and Crane (1979) studies have also been made.

References

Crane, V. Evaluation of Small-Format Videotape as a Source for Instructional Television Programming. Agency for Instructional Television: Bloomington, IN. 1979.

Dirr, P.J. & Pedone, R.J. Uses of Television for Instruction 1976-1977. Corporation for Public Broadcasting and National Center for Education Statistics: Washington D.C. 1979.

Korb, R. & Pedone, R. Influences of the Use of Instructional Television in the Classroom. Presentation to the annual meeting of the American Educational Research Association, April, 1980.

PART I. EVALUATION DESIGN

Table 1. Schedule of Evaluation Activities

September	Contacted Special Education Experts for survey review.
October - November	Developed first draft of survey. Mailed first draft of survey to experts. Revised survey. Contacted Market Data Retrieval for purchase of mailing labels.
November - December	Mailed second draft of survey to experts. Revised survey. Pilot tested survey with teachers. Revised and printed survey.
January - February	Conducted first mailing of survey.
March	Conducted second mailing of survey to nonrespondents.
February - July	Processed data on microcomputers.
May	Conducted telephone survey.
July	Analyzed data.
August	Prepared final report.

The survey of ITV use among Special Education teachers began in September of 1981. A schedule for the evaluation activities which occurred over the year is presented on the opposite page. During the first quarter of the year, the survey was developed, reviewed by experts, revised, and pilot tested with Special Education teachers. During this time, two sets of 3,000 address labels with Special Education teachers' names were ordered from Market Data Retrieval.

During the next four months, all Special Education teachers in the sample received a copy of the questionnaire. A second mailing was conducted six weeks after the first to all Special Education teachers who did not respond to the first mailing.

Surveys were processed on Apple II Plus computers as they were received at Research Communications throughout the winter and spring months. In the late spring, a subsample of teachers who did not respond to either mailing were contacted by phone. They were asked to return the survey or to respond to an abbreviated version of the survey by telephone. The final months of the study were devoted to data processing, analysis and report preparation.

Sample

A list of 3,000 randomly selected Special Education teachers was purchased from Market Data Retrieval. A total of 1203 surveys were returned to Research Communications. Of these, 674 responded to the first mailing and 529 responded to the second mailing. The return rate for the survey was 40%. However, 18% of the respondents indicated that they were not Special Education teachers. It is reasonable to assume that an even higher percentage of nonrespondents did not teach Special Education. In fact, the rate of return from Special Education teachers might have been higher than that reported here.

The telephone survey was conducted on a subsample of Special Education teachers who had not responded to the first or second mailing. The telephone survey was delayed until late in the school year because of delayed payments from the Department of Education to Research Communications. Therefore, every fourth teacher on the mailing list (N=372) was selected to participate in the telephone survey. A total of 244 calls were made from May to the middle of June. One-third of the schools were not in session and only 12 Special Education teachers were available to be interviewed. The interviewer left messages for the remaining teachers to return their surveys. Due to the limited response to this survey, the data are not included in this report. It would appear that telephone surveys are not cost-efficient because of the unavailability of teachers during the school day.

Table 2. Distribution of Sample According to Grade Levels

Teachers' Responses	Number of Teachers (N=973)	Percentage of Teachers
Prekindergarten-Grade 2	483*	50%
Grades 3-5	539	55
Grades 6-8	445	46
Grades 9-12	281	29

Throughout the tables of this report a '' indicates that teachers may have selected more than one response.

On the survey, teachers were asked to indicate which grade levels they taught (see Table 2). On the whole, a majority of Special Education teachers responding to this survey were elementary school teachers. According to this table, there are a significant number of Special Education teachers who teach multiple grade levels. (As many as 40% of the teachers are represented in more than one grade level category.) Therefore, grade level analyses were not performed on the data.

The total number of teachers responding to each item is reported in each table. There is a high nonresponse level on some items, especially toward the end of the section on utilization of ITV. It is most likely that teachers who did not use ITV skipped over a number of these items.

Table 3. Types of Students Taught by Special Education Teachers

Teachers' Responses	Number of Teachers (N=989)	Percentage of Teachers
Learning Disabled	729*	74%
Physically Disabled	131	13
Sight Impaired	66	7
Hearing Impaired	127	13
Other	462	47

Table 4. Number of Students Taught

Teachers' Responses	Number of Teachers (N=983)	Percentage of Teachers
1-10	217	22%
11-20	432	44
21-50	259	26
50+	75	8

Table 5. Structure of Special Education Classes

Teachers' Responses	Number of Teachers (N=989)	Percentage of Teachers
Class of Special Ed. Students Only	649*	66%
Mainstreamed	50	5
Individual or Small Groups	377	38
Other Situations	66	7

Background information on teachers concerning the types and numbers of students taught, structure of Special Education classes, subjects taught, and number of years teaching experience was obtained. Tables 3-7 present this information.

Teachers were asked if they taught learning disabled, physically disabled, sight or hearing impaired or "other" types of Special Education students. Almost three-fourths of the teachers taught learning disabled students. Almost one-half of the teachers checked the "other" category on this item. Most frequently, teachers indicated that students in this category were emotionally disturbed or had behavioral disorders. Sight, hearing and other physical handicaps were much less common.

When teachers were asked to report the total number of Special Education students they taught in a week, very few (8%) reported that they taught more than 50. Approximately two-thirds of the teachers had classes ranging in size from one to twenty students.

Teachers also provided information about how their classes were structured. A majority (66%) reported that they taught in a classroom comprised of Special Education students only, while 38% reported that they taught individual or small group sessions outside the students' regular classes. Only 5% of the Special Education teachers taught in mainstreamed classes. "Other" teaching situations included resource rooms and the library.

Table 6. Subjects Taught by Special Education Teachers

Teachers' Responses	Number of Teachers (N=986)	Percentage of Teachers
All	274*	28%
Language Arts	586	59
Math	563	57
Occupational	89	9
Vocational	113	11
Science	249	25
Art/Music	81	8
Social Studies	309	31
Physical Education	46	5
Other	221	22

Table 7. Number of Years Teaching Experience

Teachers' Responses	Number of Teachers (N=987)	Percentage of Teachers
Less than 1 Year	31	3%
1-3 Years	173	18
4-10 Years	522	53
10 or More Years	261	26

Subjects most frequently taught by Special Education teachers included:

- Language Arts (59%);
- Math (57%);
- Social Studies (31%); and
- Science (25%).

Art/music,occupational and physical education were infrequently taught by Special Education teachers.

When asked how long they had been teaching Special Education, approximately half of the sample reported teaching from four to ten years. Another 26% taught for 10 or more years while fewer (21%) taught less than four years. This suggests that our sample consisted of teachers with a substantial amount of Special Education experience.

Instruments

A 29-item survey was developed with assistance from 20 Special Education experts in Massachusetts, two research consultants to the study, and 30 Special Education teachers in three sites. There were seven items on background information described in the previous section of this report. In addition, five questions were included on the availability of instructional television (ITV); nine questions on the use of ITV; three questions on the availability of support ITV services; and five questions on the use of microcomputers. See the Appendix for a copy of the questionnaire.

Data Analysis

All survey data were processed and analyzed on an Apple II Plus Computer at Research Communications, Inc. A special RCI software package was used to generate frequencies and percentages for this report. Total responses were obtained for each item on the survey. Open-ended questions were tabulated and recorded separately by evaluation staff.

PART II. AVAILABILITY OF ITV AMONG SPECIAL EDUCATION TEACHERS

This section of the report focuses on findings concerning the availability of ITV formats, availability of video equipment, availability of TV sets, and viewing setting for ITV.

Table 8. Availability of ITV Formats

Teachers' Responses	Number of Teachers (N=991)	Percentage of Teachers
Broadcast	458*	46%
Videotape	142	14
Videocassette	164	17
Videodisc	12	1
16mm	103	10
Not Sure	342	35
None	242	24

When teachers were asked whether ITV programs were available to them in each of a variety of formats (see Table 8) about half of the teachers (46%) reported that ITV was available to them through direct broadcast. However, about one-fourth (24%) of Special Education teachers did not have ITV available to them in any format, and about one-third of teachers (35%) did not know what formats were available to them. This indicates a need to inform teachers about resources that could be available to them. When these data are compared to the CPB Utilization Study (Dirr & Pedone, 1977), the responses correspond quite closely. In that study, 28% reported that ITV programming was not available, as compared with 24% of the Special Education teachers. However, it is possible that ITV is not available to a portion of Special Education teachers who reported that they were not sure (35%).

Videotape and videocassette formats were reported to be available far less frequently to Special Education teachers (14% and 17% respectively) than to teachers in the general population who were surveyed in a study devoted specifically to small format videotape use (Crane, 1979). In that study, 54% of the teachers used videotape reel to reel and another 39% used videocassette.

When asked if video equipment was available to them when they needed it, 75% of the Special Education teachers reported that they had access to video

Table 9. Availability of Video Equipment

Teachers' Responses	Number of Teachers (N=915)	Percentage of Teachers
Always	215	23%
Usually	322	35
Sometimes	154	17
Rarely	73	8
Never	151	17

Table 10. Availability of TV Sets

Teachers' Responses	Number of Teachers (N=947)	Percentage of Teachers
Black and White	464*	49%
Color	420	44
None	160	17
Not Sure	57	6

Table 11. Viewing Setting for ITV

Teachers' Responses	Number of Teachers (N=370)	Percentage of Teachers
Equipment In My Room	117	32%
Move Equipment To My Room	176	48
Separate Room	59	16
Other	18	5

equipment at least some of the time (see Table 9). Almost one-fifth reported that video equipment was never available when needed.

In the study of small-format videotape (Crane, 1979), video equipment was available to 89% of teachers at least some of the time, while 11% rarely or never had video equipment available to them. Once again, availability was higher among regular classroom teachers than among Special Education teachers.

In terms of the types of equipment available (see Table 10), approximately three-fourths (77%) of the Special Education teachers had access to either black and white (49%) or color (44%)* televisions when needed. When these findings are compared with those reported in the Dirr & Pedone (1977) and Crane (1979) studies, Special Education teachers are much less likely than regular classroom teachers (77% vs 92%) to have television sets available to them.

Special Education teachers were also asked how they usually view ITV (see Table 11). Of those who view television (37% of the total sample), Special Education teachers most frequently moved equipment into their rooms (48%). Almost a third used equipment already in their room. These findings roughly parallel percentages reported in the CPB study.

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*Some teachers had both black & white and color television sets available to them. Hence these percentages are greater than the precentage of total Special Education teachers who have television sets available.

PART III: USE OF INSTRUCTIONAL TELEVISION.

This section of the report focuses on findings concerning the utilization of ITV. On the following pages, the frequency of use of ITV and ITV series, as well as factors which influence ITV utilization, are discussed.

Table 12. Frequency Of Use of ITV

Teachers' Responses	Number of Teachers (N=947)	Percentage of Teachers
Daily	67	7%
Once A Week	71	7
Few Times A Month	87	9
Once Every Few Months	117	12
Never	605	64

Table 13. Frequency of Teachers' Reasons for Not Using ITV

Teachers' Responses	Number of Teachers (N=615)	Percentage of Teachers
No Equipment Available	303*	49%
Programs and Series Not Worthwhile	32	5
Not Sure How To Use Equipment	46	7
Equipment Poor Quality	21	3
Too Much Trouble	46	7
Broadcast Schedule Inconvenient	94	15
Programs Not Available	65	10
Other	185	30

When Special Education teachers were asked how frequently they use ITV in the classroom, only 36% reported that they used ITV at least once every few months (see Table 12). The CPB study (Dirr & Pedone, 1979) reported that 42% of all teachers used ITV during the school year. It would appear that Special Education teachers use ITV less frequently than regular classroom teachers.

Teachers who did not use ITV were given the opportunity to indicate their reasons for not using ITV (see Table 13). The most frequent reason for not using ITV was lack of equipment. Almost half (49%) of Special Education teachers who do not use ITV reported that there was no equipment available to them.

A total of 185 (30%) teachers who do not use ITV wrote in "Other" responses which were categorized and tabulated. About one quarter (23%) of these respondents said that they did not use ITV because they were unfamiliar with ITV generally, while another quarter (23%) reported that ITV programs were not applicable to their curricula. Reasons offered slightly less frequently were that teachers guides were not available (19%), ITV programs were inappropriate to class structure (18%), and teachers' time with students was too limited (16%). These teachers expressed a need for shorter programs (15 to 20 minutes) because their Special Education classes meet for only 30 minutes at a time. Representative responses are given here.

Table 14. Frequency of Use of ITV Series

Teachers' Responses	Number of Teachers (N=209)	Percentage of Teachers
1	76	36%
2	68	33
3	39	19
4	14	7
5+	12	6

- "Programs I want are not available when I have the pupils-- other classrooms use it."
- "Because of the nature of my class and the various levels students are on in terms of individual assignments, it becomes more disruptive than helpful."
- "Feel that individualized instruction is more valuable during the short period they are in the room."
- "Programs do not coincide with the level or pace at which students work."
- "Not sure of its effectiveness, I feel one-to-one contact is probably more effective."
- "Not sure of what ITV is and what it makes available."
- "Students cannot understand ITV--secondly not enough time."
- "Don't feel it's justified spending time when students need training in basic skills."
- "Never seen schedule or information on it."

In addition to determining frequency of ITV use, teachers were asked to indicate how many different instructional television series they used regularly (see Table 14). For the purposes of this survey, regular use was defined as approximately half of all lessons in a series.

Of all Special Education teachers surveyed, only 21% reported that they use ITV series on a regular basis. Approximately one-third of these teachers use one series, another third use two series and the remaining third use three, four, or five or more series.

Teachers who use ITV series were also asked to list two or three of the most effective school TV series they use. A total of 278 Special Education

teachers responded to this question. A list of the eleven most frequently reported series follows:

- Electric Company (28%)
- Sesame Street (11%)
- Inside Out (6%)
- Letter People (4%)
- All About You (4%)
- Bread and Butterflies (4%)
- Readalong (4%)
- Gather Around (3%)
- Cover to Cover (3%)
- 3-2-1-Contact (3%)
- Nova (3%).

Seven of these eleven series were also listed in the CPB study (Dirr & Pedone, 1977) in the top twenty-five most used ITV programs. However, the numbers represented here are very small.

Table 15. Convenience of Broadcast Schedules

Teachers' Responses	Number of Teachers (N=619)	Percentage of Teachers
Always	27	4%
Usually	114	18
Sometimes	86	14
Rarely	67	11
Never	38	6
Don't Use Series During Broadcast Time	287	46

Table 16. Perceptions of Value of ITV as a Teaching Tool

Teachers' Responses	Number of Teachers (N=844)	Percentage of Teachers
Definitely Yes	186	22%
Yes	344	41
Not Sure	299	35
No	14	2
Definitely No	1	.1

Special Education teachers were asked how frequently broadcast schedules were convenient for them (see Table 15). Only 22% checked "always" or "usually" while an additional 14% indicated that broadcast schedules were "sometimes" convenient for them. Almost half of teachers do not use ITV programs during broadcast times. More than a third (38%) of the total sample did not answer this question.

A comparison with the small-format videotape survey (Crane, 1979) suggests that broadcast schedules are less frequently convenient for Special Education teachers than for teachers in the general population. According to that survey, 62% of teachers found broadcast times convenient at least some of the time while only 36% of the Special Education teachers reported this to be true.

Furthermore, almost half of Special Education teachers do not use ITV during broadcast times. However, some Special Education teachers may record programs for later use. In the small-format videotape survey (Crane, 1979), 22% of all teachers reported that they recorded programs for future use at least some of the time.

Special Education teachers' general attitudes toward ITV were also investigated. When asked whether they thought that ITV was a valuable teaching tool (see Table 16), 63% of the Special Education teachers

Table 17. Most Suitable Format

Teachers' Responses	Number of Teachers (N=716)	Percentage of Teachers
Broadcast	193	27%
Film	131	18
Videotape	49	7
Videocassette	134	19
Videodisc	2	.2
Not Sure	207	29

responded "yes" or "definitely yes". However, more than one-third of teachers (35%) (compared with 16% of regular teachers as reported in the small-format videotape study (Crane, 1979)) were not sure of the value of ITV as a teaching tool. This again points to a need to inform Special Education teachers about resources available to them.

When asked which ITV format was most suitable for their classroom use (see Table 17), approximately one-fourth (27%) of the Special Education teachers reported that broadcast represented the most suitable format while another 26% selected videotape reel to reel (7%) or videocassette (19%). However, teachers most frequently responded (29%) that they were not sure what format was most suitable for their use. Videodisc was selected as most suitable by only two teachers.

Table 18. Frequency Of Use by Subject Area

Teachers' Responses	Number of Teachers (N=318)	Percentage of Teachers
Art/Music	50*	16%
Career/Vocational Ed.	63	20
Foreign Language	4	1
Language Arts/ Reading	187	59
Home Economics/ Industrial Ed.	11	3
Math	56	18
Physical Education/ Health	36	11
Science	103	32
Social Sciences	124	39

Table 19. Perceptions of Need for ITV Programming by Subject Area

Teachers' Responses	Number of Teachers (N=779)	Percentage of Teachers
Art/Music	179*	23%
Career/Vocational Ed.	385	49
Foreign Language	45	6
Language Arts/ Reading	448	58
Home Economics/ Industrial Ed.	185	24
Math	356	46
Physical Education/ Health	151	19
Science	332	43
Social Sciences	362	46
None Needed	107	14

Teachers who use ITV were asked to indicate the subject areas in which they regularly use ITV. Table 18 shows that the three subject areas in which teachers most frequently use ITV are Language Arts and Reading (59%), Social Sciences (39%), and Science (32%). On the whole, teachers used ITV least frequently for Physical Education and Health (11%), Home Economics and Industrial Education (3%), and Foreign Language (1%).

Teachers were asked to indicate those subject areas in which ITV programming was needed. These findings are reported in Table 19. Teachers indicated that programming was needed in Language Arts and Reading (58%), Career and Vocational Education (49%), Social Sciences (46%), and Science (43%). Only 6% thought that ITV programming was needed in Foreign Language.

A comparison between the frequency of use of ITV against their perceptions of the need for programming reveals large discrepancies. For most subject areas, findings on the need for programming exceeds the actual use. This suggests that one barrier to ITV use among Special Education teachers is the lack of appropriate programming for their students. The largest gaps between frequency of use and perceptions of need were in the areas of Career/Vocational Education, Math, and Home Economics/Industrial Education. These subject areas represented areas in which specialized instructional materials are needed for Special Education teachers. While there are some series available on these topics (Freestyle, for example), Special Education teachers did not list them as series they use. Perhaps they are unaware of them.

Finally, Special Education teachers were asked to list factors which would help them to use ITV programs with Special Education students. These responses were most frequently related to increased availability of equipment. Most teachers expressed a need for advance information about ITV generally; information regarding scheduling for planning purposes; and advance availability of teachers' guides with program summaries and follow-up activities. Factors offered less frequently included program content, program format, pacing, and time-limit considerations. Characteristic responses are listed below.

- "We could use them if we had video equipment to tape and replay, otherwise, scheduling would be impossible."
- "Workshop or information on how to use the equipment."
- "Scheduling is important since equipment is hard to get."
- "Programs should be scheduled more between 8:30 and 10:30 than between 11:30 and 2:30."
- "Scheduled programming which informs teacher of broadcast and content to be covered ahead of showing date."
- "Program guides should provide review discussion questions and extended activities to use after viewing."
- "Program content should be high interest, low vocabulary."
- "Would like to see programs developed for younger students (3-5), using readiness skills. Shows should be highly motivated and repetitious. Should evoke responses and participation by students."
- "Articulation and language skills-- not only grammar."
- "At the high school level, career and vocational education is greatly needed and, in our school system, greatly lacking."

- "More affective education-- role-play, modeling situations."
- "For Special Education students, programs with a format like Readalong are better because of 15 minute programs three days per week--students are not overloaded."
- "Should have a slow paced format which repeats several times and supplies the correct answers, worksheets, to go along with the show."
- "Pacing and vocabulary are the most difficult for my students."
- "Students have a short attention span (15 minutes)."
- "Captioning for the hearing-impaired."

PART IV: AVAILABILITY OF SUPPORT ITV SERVICES

This section of the report discusses findings regarding the availability and adequacy of training in the use of ITV, and availability of teachers' guides and print material which accompany ITV series.

Table 20. Source of ITV Training

Teachers' Responses	Number of Teachers (N=884)	Percentage of Teachers
Local ITV Agency	40	5%
Special Education Dept. in School	16	2
University or College	39	4
School Media Specialist	270	31
Other	86	10
No Training	433	49

Table 21. Perceptions of Adequacy of ITV Training

Teachers' Responses	Number of Teachers (N=513)	Percentage of Teachers
Very Adequate	62	12%
Somewhat Adequate	157	31
Not Sure	89	17
Somewhat Inadequate	91	18
Very Inadequate	114	22

Table 22. Availability of Teachers' Guides And Print Materials

Teachers' Responses	Number of Teachers (N=780)	Percentage of Teachers
Always	137	18%
Often	101	13
Sometimes	143	18
Rarely	105	13
Never	294	38

Special Education teachers were questioned about the availability of support ITV services. Almost half of all teachers (49%) reported that no training was available to them (see Table 20). For those who received training the School Media Specialist was cited most frequently as providing this training. Teachers who received training in the use of instructional television were asked how adequate the training was (see Table 21). Only 40% of the teachers reported that training available to them was either somewhat or very inadequate.

Special Education teachers were also asked how often teachers' guides and other print material, which accompany ITV series, were available to them for instructional planning (see Table 22). Approximately one-third (31%) of Special Education teachers reported that teachers' guides and print material were always or often available for instructional planning. However, half said that this supplementary material was rarely or never available to them.

PART V: UTILIZATION OF MICROCOMPUTERS

This final section of the report focuses on findings regarding availability and utilization of microcomputers in Special Education teaching situations. Perceptions of the value of microcomputers and of the need for training are also discussed.

Table 23. Availability of Microcomputers

Teachers' Responses	Number of Teachers (N=951)	Percentage of Teachers
Yes	292	31%
No	552	58
Not Sure	107	11

Table 24. Frequency of Use of Microcomputers

Teachers' Responses	Number of Teachers (N=931)	Percentage of Teachers
Yes	87	9%
No	825	89
Not Sure	19	2

In addition to determining the availability and frequency of use of ITV, Special Education teachers were also questioned about the availability and utilization of microcomputers. The purpose of asking these questions was to provide a comparison between the uses of the technologies in the classroom.

When teachers were asked if they had microcomputers in their schools (see Table 23), approximately one-third (31%) of teachers reported that microcomputers were available. More than half of Special Education teachers (58%) said that their schools did not have microcomputers, while only 11% were not sure.

Teachers were also asked if they used microcomputers in their classrooms (see Table 24). Only 9% of Special Education teachers reported that they used this technology in their classrooms, while nine out of ten of the teachers did not.

A comparison between the findings on availability and utilization of microcomputers against those on ITV shows that Special Education teachers use microcomputers much less frequently than they use ITV. In previous sections of this report it was shown that about half (46%) of Special Education teachers had ITV available to them (see page 14). A majority of teachers had television sets and video equipment (77% and 75% respectively) as compared with one-third (31%) of Special Education teachers who had microcomputers available to them. With regard to use, the data indicate

Table 25. Perceptions of Microcomputer as a Valuable Teaching Tool

Teachers' Responses	Number of Teachers (N=927)	Percentage of Teachers
Yes	497	54%
No	35	4
Not Sure	395	43

Table 26. Perceptions of Need for Training in Use of Microcomputers

Teachers' Responses	Number of Teachers (N=914)	Percentage of Teachers
Yes	484	53%
No	93	10
Not Sure	337	37

that ITV is available and used more frequently than microcomputers. This finding is not surprising since microcomputers represent a newer technology than instructional television.

Teachers were also asked whether they thought that microcomputers constituted a valuable teaching tool. About half of the teachers (54%) reported that this technology was valuable as a teaching tool (see Table 25).

A comparison between the findings on this item against the corresponding data on ITV (see page 20), shows that a somewhat greater percentage of teachers (63%) perceive of ITV as a valuable teaching tool than consider microcomputers valuable in teaching situations (54%). Again, this is probably due to the relative novelty of microcomputers in the schools.

Special Education teachers were also asked if they thought that training in the use of microcomputers was needed in their schools. To this question more than half of teachers (53%) responded affirmatively, 37% were not sure, and only 10% said that training was not needed (see Table 26).

SUMMARY AND CONCLUSIONS

The study of ITV use among Special Education teachers began in September of 1981. A 29-item instrument was developed which included questions on the availability of instructional television (ITV); the use of ITV; availability of support ITV services; and the use of microcomputers to provide a comparison between the two technologies. A total of 1203 surveys were returned to Research Communications; of these, 991 were completed by Special Education teachers. All survey data were processed on an Apple II Plus Computer at Research Communications, Inc. A special RCI software package was used to generate frequencies and percentages for this report. Total responses were obtained for each item on the survey. Open-ended questions were tabulated and recorded separately by evaluation staff. See the Appendix for a copy of the questionnaire.

Background information on Special Education teachers concerning the types and numbers of students taught, structure of classes, subjects taught, and number of years teaching experience was obtained. Almost three-fourths of the teachers taught learning-disabled students. A majority of teachers (66%) reported that they taught in a classroom comprised of Special Education students only, while more than one-third (38%) taught individual or small group sessions outside the students' regular class. Subjects most frequently taught by Special Education teachers included Language Arts/ Reading (59%); Math(57%); Social Studies (31%); and Science (25%) while Art/ Music, and Physical Education were infrequently taught. Half of the sample

reported teaching Special Education from four to ten years and about one-quarter taught for 10 or more years. This suggests that our sample consisted of teachers with a substantial amount of Special Education experience.

Direct broadcast reception constitutes the most available format for viewing ITV with nearly half of Special Education teachers reporting that ITV was available to them through broadcast. Approximately one-fourth of teachers also perceived direct broadcast as the most suitable format for viewing ITV in their classrooms. Videotape and videocassette formats were reported to be available less frequently to Special Education teachers (14% and 17% respectively) than to teachers in the general population who were surveyed in a study devoted specifically to small format videotape use (Crane, 1979). In that study, 54% of the teachers used videotape reel to reel and another 39% used videocassette.

About one-fourth of Special Eduation teachers had no ITV formats available to them and 35% of respondents were not sure what formats were available to them. Similarly, when asked what ITV format was most suitable for their classroom use, teachers most frequently responded (29%) that they were not sure what format was most suitable for their use. This suggests that Special Education teachers need to be informed about instructional television resources available to them.

Three-fourths of Special Education teachers reported that video equipment was available to them when they needed it at least some of the time. Approximately three-fourths of Special Education teachers had access to either black and white or color television sets or both. A comparison against figures reported in the Dirr & Pedone (1977), and Crane (1979) studies shows that Special Education teachers are much less likely than regular classroom teachers (77% vs 92%) to have television sets available. Of those who view ITV (37% of the total sample), Special Education teachers most frequently move equipment into their rooms (48%).

With regard to use of ITV, 36% of Special Education teachers reported that they use ITV at least once every few months. Equipment availability was reported as a major barrier to ITV use among Special Education teachers. 'Other' reasons offered for not using ITV were that broadcast schedules were inconvenient; teachers were unfamiliar with ITV generally; and that programs were not applicable to curricula or inappropriate to class structure.

Special Education teachers' attitudes toward ITV were also examined. Almost two-thirds of teachers said that they thought that ITV was a valuable teaching tool. However, more than one-third of Special Education teachers (compared with 16% of regular teachers in the CPB study) were not sure of the value of ITV as a teaching tool. This again indicates a need to inform Special Education teachers about resources available to them.

The three subject areas in which teachers most frequently used ITV were Language Arts and Reading (59%), Social Sciences (39%), and Science (32%). Teachers indicated that programming was needed in Language Arts and Reading (58%), Career and Vocational Education (49%), Social Sciences (46%), and Science (43%). On the whole, the findings show that the need for programming exceeds the actual use. This suggests that one barrier to ITV use among Special Education teachers is the lack of appropriate programming for their students. The largest gaps between frequency of use and perception of need were in the areas of Career/ Vocational Education, Math, and Home Economics/ Industrial Education.

Half of all Special Education teachers surveyed reported that no training was available to them. Of those teachers who received training in the use of ITV, this training was most frequently provided by the School Media Specialist. Only 40% of the teachers reported that training available to them was either somewhat or very inadequate.

In addition to determining the availability and utilization of ITV, Special Education teachers were also questioned about the use of microcomputers to provide a point of comparison between the two technologies. This study found that ITV is available more frequently and used more frequently than microcomputers in the schools. Finally, somewhat more Special Education teachers perceive of ITV as a valuable teaching tool than consider microcomputers of value in teaching situations. This finding is not surprising since microcomputers constitute a newer technology than ITV.

In summary, the following conclusions can be drawn from this survey on the utilization of ITV among Special Education teachers.

1. Special Education teachers have access to video equipment and television sets less frequently than regular classroom teachers.

2. ITV is used by Special Education teachers less frequently than by regular classroom teachers because of lack of equipment; lack of knowledge about the availability of ITV; and scheduling constraints.

3. Special Education teachers consider ITV valuable as a teaching tool and perceive a need for an increased amount of programming which is appropriate to the needs of Special Education students.

4. When ITV is compared to microcomputers for school use, ITV is available and used more frequently and more likely to be viewed as a valuable teaching tool.

APPENDIX

TEACHER SURVEY QUESTIONNAIRE

SPECIAL EDUCATION TEACHER QUESTIONNAIRE

DIRECTIONS FOR COMPLETING THE QUESTIONNAIRE:

Please check the appropriate box or space provided for each item. Fill in additional responses where appropriate.

School _____ City/State _____

By INSTRUCTIONAL TELEVISION (ITV) we mean to include in-school uses of television programs that are BROADCAST from a TV station, TV agency, or cable company, directly to a TV set in the classroom. These programs are also available in other formats such as videotape, videocassette, and 16mm film.

I. BACKGROUND INFORMATION

1. Do you teach Special Education? ☐ Yes ☐ NO

(IF NO, PLEASE STOP HERE AND RETURN THE QUESTIONNAIRE IN THE ENCLOSED SELF-ADDRESSED ENVELOPE.)

2. How many years have you been teaching Special Education?

○ less than 1 ○ 1-3 ○ 4-10 ○ 10 or more

3. What grades do you teach? *(Check all that apply)*

⬡ pre K-2 ⬡ 3-5 ⬡ 6-8 ⬡ 9-12

4. What subjects do you teach? *(Check all that apply)*

△ All
△ Language Arts
△ Math
△ Occupational
△ Vocational
△ Science
△ Art/Music
△ Social Studies
△ Physical Education
△ Other (specify) _____

5. Do you teach Special Education students: *(Check all that apply)*

☐ in a classroom comprised of Special Education students only?
☐ in a mainstreamed class?
☐ in individual or small group sessions outside their regular class?
☐ other (specify)? _____

6. What types of Special Education students do you teach? *(Check all that apply)*

⬡ Learning Disabled
⬡ Physically Disabled
⬡ Sight Impaired
⬡ Hearing Impaired
⬡ Other (specify) _____

7. What is the total number of Special Education students you teach in a week? *(Don't count any student more than once)* _____

AVAILABILITY OF INSTRUCTIONAL TELEVISION (ITV)

1. Are ITV programs available to you and your classes through broadcast?
   - ☐ YES
   - ☐ NO
   - ☐ NOT SURE

2. Are ITV programs available to you in these formats? *(Check all that apply)*
   - ○ Videotape (reel to reel)
   - ○ Videocassette (½" or 3/4")
   - ○ Videodisc
   - ○ 16mm film
   - ○ Not sure
   - ○ Not available

3. Is video equipment available for your use when you need it?
   - ⬡ Always
   - ⬡ Usually
   - ⬡ Sometimes
   - ⬡ Rarely
   - ⬡ Never

4. How do you usually view ITV? *(Check one response)*
   - △ Don't use ITV
   - △ On equipment permanently placed in my room
   - △ On equipment moved into my classroom when I need it
   - △ A separate viewing room where I take my class
   - △ Other (specify) _____

5. What kinds of TV sets are made available by the school for your use? *(Check all that apply)*
   - ☐ Black and white
   - ☐ Color
   - ☐ None available
   - ☐ Not sure

USE OF INSTRUCTIONAL TELEVISION (ITV) PROGRAMS

1. How frequently do you use ITV in the classroom?
   - ○ Daily
   - ○ Once a week
   - ○ Few times a month
   - ○ Once every few months
   - ○ Never [*Go to 1a.*]

1a. If you do NOT use ITV, please check all reasons that apply to you.
   - ⬡ *No equipment available*
   - ⬡ *Programs and series are not worthwhile*
   - ⬡ *Not sure how to use equipment*
   - ⬡ *Equipment is of poor quality*
   - ⬡ *Too much trouble*
   - ⬡ *Broadcast schedule inconvenient*
   - ⬡ *Programs I want are not available*
   - ⬡ *Other (specify)* _____

2. How many different ITV series do you use regularly (i.e. approximately 50% of all the lessons in the series? *(Check one)*
   - △ None
   - △ 1
   - △ 2
   - △ 3
   - △ 4
   - △ 5 or more

IV. AVAILABILITY OF SUPPORT ITV SERVICES

1. In your school system, who provides you with training in the use of instructional television? *(Check all that apply)*

   - ☐ Local ITV agency
   - ☐ Special Education department in your school system
   - ☐ University or college
   - ☐ School Media Specialist
   - ☐ Other (specify) _____
   - ☐ No training available

2. How adequate is the training you have had in the use of instructional television?

   - △ Very adequate
   - △ Somewhat adequate
   - △ Not sure
   - △ Somewhat inadequate
   - △ Very inadequate
   - △ No training available

3. How often are teacher's guides and other print materials which accompany ITV series available to you for instructional planning?

   - ⬡ Always
   - ⬡ Often
   - ⬡ Sometimes
   - ⬡ Rarely
   - ⬡ Never

V. UTILIZATION OF MICROCOMPUTERS

1. Do you have microcomputers in your school? ○ YES ○ NO ○ NOT SURE
2. Do you use microcomputers in your classroom? ⬡ YES ⬡ NO ⬡ NOT SURE
3. Do you think microcomputers are a valuable teaching tool? ☐ YES ☐ NO ☐ NOT SURE
4. Do you think training in the use of microcomputers is needed in your school? △ YES △ NO △ NOT SURE
5. What kind of computer programs should be developed to meet the needs of your students?

_____

_____

_____

3. Please list 2 or 3 of the MOST effective school TV series or 16mm films you use. *(Check whether it is TV or Film)*

	TV	Film
_____	_____	_____
_____	_____	_____
_____	_____	_____

4. How convenient are the broadcast times of the series you use?

- ○ Always convenient
- ○ Usually convenient
- ○ Sometimes convenient
- ○ Rarely convenient
- ○ Never convenient
- ○ Don't use series during broadcast times

5. Which one of the following formats is most suitable for your classroom use? *(Check only one)*

- ☐ Broadcast
- ☐ Film (16mm)
- ☐ Videotape (reel to reel)
- ☐ Videocassette
- ☐ Videodisc
- ☐ Not sure

6. Do you think ITV is a valuable teaching tool?

- △ Definitely yes
- △ Yes
- △ Not sure
- △ No
- △ Definitely no

7. In what subject areas do you regularly use ITV? *(Check all that apply)*

- ⬡ Art/Music
- ⬡ Career/Vocational Ed
- ⬡ Foreign Language
- ⬡ Language Arts/Reading
- ⬡ Home Economics/Industrial Ed
- ⬡ Math
- ⬡ Physical Ed/Health Ed
- ⬡ Science
- ⬡ Social Sciences
- ⬡ None

8. In what subject areas are ITV programs needed for Special Education students? *(Check all that apply)*

- ○ Art/Music
- ○ Career/Vocational Ed
- ○ Foreign Language
- ○ Language Arts/Reading
- ○ Home Economics/Industrial Ed
- ○ Math
- ○ Physical Ed/Health Ed
- ○ Science
- ○ Social Sciences
- ○ None

9. Please list below any factors which would help you to use ITV programs with Special Education students. *(Consider: program content, production format, pacing, program guides, scheduling, equipment)*

_____

_____

_____